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REMARKS

This Amendment is in response to the final Office action mailed on July 20, 2006. Claims 1 and 6 are currently amended. Claim 1 is amended to include the features of claims 5, 9 and 10 and is further supported, for example, in the specification on page 7, line 34-page 8, line 19. Claim 6 is amended to track claim 1. Claims 5, 9 and 10 are cancelled without prejudice or disclaimer. No new matter has been added. Claims 1-4, 6 and 11 remain pending.

Withdrawn Claims:

The Office action summary sheet does not recognize the pendency of claims 7 and 8. Please be advised that these claims are still present in this case.

§103(a) Rejections:

Claims 1, 3, 5, 6 and 9-11 are rejected as being obvious on consideration of Balasmo (US Publication No. 2003/0031222) in view of Matsumura (US Publication No. 2003/0128729). Applicants traverse this rejection.

Claim 1 is directed to a semiconductor laser device that requires, among other features, that the ratio between the stripe width at a front end face and the stripe width at a rear end face satisfies a relationship of $1 < (\text{the stripe width at the front end face}) / (\text{the stripe width at the rear end face}) < 2$. Claim 1 also requires that the stripe width at the rear end face is 1.4 μm or more and less than 2.0 μm . To satisfy the conditions of both of these features the stripe width at the front end face must be 1.4 μm or more and less than 4.0 μm . Furthermore, claim 1 requires that the region having the constant stripe width on the rear end face side have a length of one-twentieth or shorter of the length of the resonator.

Balasmo does not teach or suggest these features. Namely, Balasmo does not teach or suggest that the stripe width at the rear end face is 1.4 μm or more and less than 2.0 μm and that the stripe width at the front end face is 1.4 μm or more and less than 4.0 μm . In contrast, Balasmo teaches a stripe width at the rear end face ("W1") with a range between 3.0 μm and 5.0 μm (see paragraph [0023]). Balasmo further teaches a stripe width at the front end face ("W3") with a range between 5.0 μm to 11.0 μm or 5.0 μm to

20.0 μm (see paragraphs [0019] and [0023]). Also, Balasmo teaches a length ("L1") of the region having the constant stripe width on the rear end face side as 0.4 times or more a length of the resonator (see paragraphs [0019], [0035], [0071], etc.).

The combination of Balasmo with Matsumura does not remedy these deficiencies. Matsumura relates to a laser device with a stripe width at the front end face wider than a stripe width at the rear end face. Claim 1 as amended does not include the feature of the width of the stripe at the front end face is set so as to satisfy the relationship of (a vertical far-field of view angle) / (a horizontal far-field of view angle) ≤ 3 , alleged to be taught by Matsumura. This portion of the rejection is now moot. Applicants do not concede the correctness of this portion of the rejection as applied to claim 1.

Furthermore, there is no motivation to modify Balasmo or Matsumura with the features of claim 1. One advantage of having the stripe width at the rear end face at 1.4 μm or more and less than 2.0 μm is that enhancement in the slope efficiency is achieved (see page 8, lines 15-19 and Table 1). This in turn enhances the kink level during a continuous oscillation operation which allows stable laser oscillation in the fundamental transverse mode up to the time of the high optical output operation (see page 5, lines 5-17). Furthermore, an advantage of having the ratio between the stripe width at the front end face and the stripe width at the rear end face satisfy the relationship of $1 < (\text{the stripe width at the front end face}) / (\text{the stripe width at the rear end face}) < 2$ is to prevent the possibility of increased scattering loss while still allowing an enhancement of the kink level during a continuous oscillation operation (see page 10, lines 26-31). Lastly, by requiring the region having the constant stripe width on the rear end face side to have a length of one-twentieth or shorter of the length of the resonator, the invention of claim 1 ensures that the effects of the current vs. optical output characteristics disclosed in Table 1 of the specification are maintained (see page 10, line 34-page 11, line 4 and Table 1). Together, these features presented in claim 1 provide enhancements to a semiconductor laser device for writing to an optical disc or the like.

In contrast, Balasmo relates to a laser device used for communication purposes that is coupled to an optical fiber (see paragraphs [0001] and [0002]). In order to facilitate optical fiber communication, Balasmo teaches a wider stripe width at both the rear and the front end face (see paragraphs [0019] and [0023]). Balasmo also requires

that the length of the region with the constant stripe width on the rear end face side have a relatively small stripe width 0.4 times or more a length of the resonator (see paragraph [0019]). These features are essential to Balasmo in order to effectively couple with an optical fiber and sustain effective communication.

Matsumura relates to a laser device in which the stripe width at the front end face is wider than a stripe width at the rear end face. Nowhere does Matsumura disclose the features of claim 1 to facilitate stable laser oscillation in the fundamental transverse mode up to the time of the high optical output operation. For at least these reasons claim 1 is allowable. Claims 3, 6, 9 and 11 depend from claim 1 and should be allowed for at least the same reasons.

Claims 2 and 4 are rejected as being obvious on consideration of Balasmo. Claims 2 and 4 depend from claim 1 and are allowable for at least the same reasons discussed above. Applicants do not concede the correctness of the rejection.

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Conclusion:

Applicant respectfully asserts claims 1-4, 6 and 11 are in condition for allowance. Claims 7 and 8 should be reinstated for allowance with the remaining claims. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

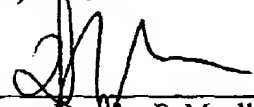
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Respectfully submitted,

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